

Application Serial No: 10/644,549
In reply to Office Action of 16 May 2005

Attorney Docket No. 84454

REMARKS / ARGUMENTS

At the outset, Applicants are pleased to note that the Examiner considers the subject matter of claims 3-5 and 9 to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1-10 are currently pending in the application. Claim 10 is allowed. Claims 1, 2, and 6-8 are rejected. Claims 3-5 and 9 are objected to.

The Examiner rejected claims 1, 2 and 6-8 under 35 U.S.C. 102(b) as being anticipated by Coutandin et al (ref A: U.S. Patent No. 5,030,321).

The Examiner states with respect to claims 1, 6 and 7, Coutandin et al. (figure 2) disclose an optical fiber coupler for connecting a first fiber optic element to a second fiber optic element, the coupler comprising a first fiber optic element (5) extending in a first direction whereby to position a free end of the first fiber optic element (5) in a selected zone (11); a second fiber optic element (6) extending into the selected zone (11) from a direction generally opposite to the first direction to position a free end of the second fiber optic element (6) in the selected zone (11) and proximate the first fiber optic element free end; and a cured optical grade epoxy resin body (12) comprising the selected zone (11) and enveloping the free ends of the fiber optic elements (5 and 6); whereby to provide physical

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and optical connection between the first and second fiber optic elements (see figure 2).

The Examiner states with respect to claim 2, Coutandin et al. (figure 2) disclose the coupler, wherein the first fiber optic element comprises a single fiber optic strand (5) and the second fiber optic element comprises a plurality of fiber optic strands (6 and 7).

The Examiner states with respect to claim 8, Coutandin et al. (figure 2 and column 2, lines 43-51) disclose the coupler, wherein at least one of the first and second fiber optic elements comprises a plurality of fiber optic strands (6 and 7), the positions to which the free ends of the first and second elements extend being spaced apart by a distance (see figure 2) allowing a sufficient extent of diffusion of light in the optical grade epoxy resin (12) there between to couple light between each strand of one of the first and second fiber optic elements with each strand of the other of the elements.

The Examiner objected to claims 3-5 and 9 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The Examiner states the prior art of record fails to disclose or reasonably suggest the coupler, wherein the body is provided with a cone-shaped end and a generally planar base end as recited

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in claim 3.

The Examiner states claims 4, 5 and 9 are dependent on the objected claim 3; therefore claims 4, 5 and 9 are also objected.

The Examiner has allowed claim 10.

The Examiner states that prior art of record fails to disclose or reasonably suggest a method for connecting a first fiber optic element to a second fiber optic element comprising the steps of providing a rigid body; coating outer surfaces of the body with a layer of mold making wax; separating the body from the wax to provide a hollow wax housing having a cone-shaped end and an open base end, in combination with the other limitations of claim 10.

These rejections and objections are respectfully traversed in view of these amendments and remarks.

Coutandin et al appears to teach channels in which polymeric optical waveguides can be laid can be milled in surfaces of plastic sheets by means of an excimer laser. The free space between the optical waveguides is filled up with a transparent casting resin. The channels produced by means of the laser are distinguished by high dimensional accuracy and low surface roughness.

Applicants teach an optical fiber coupler for coupling fiber optic elements includes a first fiber optic element extending in a first direction to position a free end thereof in

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a selected zone, and a second fiber optic element extending into the selected zone from an opposite direction to position a free end of the second fiber optic element in the zone confronting the first fiber optic element free end. A cured optical grade epoxy resin body defines the zone and envelopes the free ends of the fiber optic elements, to effect physical and optical connection between the first and second fiber optic elements. Once cured, the housing material is removed leaving the completed coupler device. The free ends of the fiber optic elements are in close proximity, or in the case of coupling from one strand to a plurality of strands, in enough of a spaced relation, to permit required light diffusion.

Applicants have amended claim 1 such that the content of claim 1 now contains the subject matter of claim 3 rewritten in independent form including all of the limitations of the base claim and any intervening claims in strict compliance with the requirements of the Examiner. Having done this, Applicants have canceled claim 3 and amended claim 4 to depend upon claim 1. Applicants respectfully suggest that, in light of the amendment to claim 1, claim 1 should now be allowed. Applicants also suggest that claims 2-9 are now also allowable through dependency upon claim 1.

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Applicants respectfully suggest in view of these remarks that all grounds for rejection and objection have been removed by the foregoing amendments. Applicants state that no new matter has been added by this amendment, and that all of the remaining claims in the application are now believed to be in condition for allowance. Reconsideration and allowance of this application are therefore earnestly solicited.

The Examiner is invited to telephone Jean-Paul A. Nasser, Attorney for Applicants, at 401-832-4736 if, in the opinion of the Examiner, such a telephone call would serve to expedite the prosecution of the subject patent application.

Respectfully submitted,

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